

**SYSTEM AND METHOD FOR SELECTING AN OPTIMAL TRANSPORT
FORMAT COMBINATION USING PROGRESSIVE SET REDUCTION**

ABSTRACT OF THE DISCLOSURE

5 A system and method is disclosed for selecting an
optimal transport format combination using progressive set
reduction. A base station in a third generation wireless
telecommunication system assigns a transport format
combination set to user equipment (UE). The system and
10 method of the invention selects a best-fit transport format
combination (TFC) by progressively identifying TFC
candidates in the transport format combination set that are
not best-fit candidates in the UE. The system and method of
the invention progressively reduces the complete TFC Set
15 to a much smaller TFC Set to be searched through for the
best-fit TFC at most times in the UE. This significantly
reduces the search time in the UE. The non best-fit
candidates are progressively deleted until only one TFC
candidate remains. The sole remaining TFC candidate is the
20 optimal best-fit TFC candidate.